

IFW



EPSTEIN & GERKEN  
1901 Research Boulevard  
Suite 340  
Rockville, Maryland 20850-3164  
(301) 610-7634

Atty Docket No.: 2401.146.US

In re the PATENT application of

David C. Hacker et al

Serial No.: 10/754,493

Filed: January 12, 2004

For: Apparatus and Method for Intraoperative Neural Monitoring

**MAIL STOP: PATENT APPLICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents for filing in the subject patent application:

Information Disclosure Statement Form 1449;

Copies of seven (7) U.S. Patents, one (1) U.S. Patent Application Publication, one (1) foreign patent document and twenty-three (23) other documents.

Respectfully submitted,

A handwritten signature of Robert H. Epstein, consisting of a stylized, cursive script.

Robert H. Epstein  
Registration No. 24,353

Hand-delivered: 8/6/04



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Atty Docket No.: 2401.146.US

In re the PATENT application of

David C. Hacker et al

Serial No.: 10/754,493

Filed: January 12, 2004

For: Apparatus and Method for Intraoperative Neural Monitoring

INFORMATION DISCLOSURE STATEMENT

**MAIL STOP: PATENT APPLICATION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the duty imposed by 37 C.F.R. §1.56 to disclose information which may be material to the above-identified patent application, the Examiner's attention is directed to the documents listed on the enclosed Information Disclosure Statement. Copies of the documents listed are enclosed herewith.

Since this Information Disclosure Statement is being filed in compliance with 37 C.F.R §1.97(b), within three (3) months of the filing date of the above-identified application and/or prior to the mailing date of the first Official Action, no fee is required in connection with its filing.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant

does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

Respectfully submitted,

A handwritten signature in black ink, consisting of a large, stylized 'R' followed by a horizontal line.

Robert H. Epstein  
Registration No. 24,353

Epstein & Gerken  
1901 Research Boulevard, Suite 340  
Rockville, Maryland 20850  
(301) 610-7634

Hand-Delivered: 8/6/04

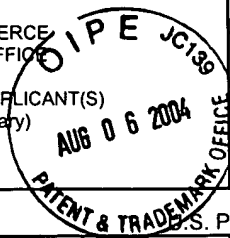
FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO:

ATTY DOCKET NO.  
2401.146.USSERIAL NO.  
10/754,493APPLICANT  
David C. Hacker et alFILING DATE  
1/12/04

GROUP



## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4,373,531	02/15/83	Wittkamp et al			
		4,892,105	1/1990	Prass			
		4,895,152	01/23/90	Callaghan et al			
		5,161,533	10/1992	Prass et al			
		6,292,701 B1	9/2001	Prass et al			
		6,306,100 B1	10/2001	Prass			
		6,334,068 B1	12/2001	Hacker			
		2002/0183647 A1	12/05/02	Gozani et al			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
		WO 02/082982 A1	10/24/02	WIPO			

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

			Burneo, Jorge G, M.D. et al, "Somatosensory Evoked Potentials: Clinical Applications," <a href="http://www.emedicine.com/neuro/topic344.htm">www.emedicine.com/neuro/topic344.htm</a>
			Stephen, John P., MB, BS, FRACS et al, "Cotrel-Dubousset Instrumentation in Children Using Simultaneous Motor and Somatosensory Evoked Potential Monitoring," SPINE, Vol. 21, Number 21, pp. 2450-2457, 1996.
			Soliman, Emad, MD, Ph.D. et al, "Somatosensory Evoked Potentials: General Principals," <a href="http://www.emedicine.com/NEURO/topic640.htm">www.emedicine.com/NEURO/topic640.htm</a>
			Moore, Linda R.T.T., R.EPT, et al, "Intraoperative Monitoring During Surgery for Spinal Deformity," Nicolet Biomedical, Inc. Article No. 169-410300.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO:

ATTY DOCKET NO.  
2401.146.USSERIAL NO.  
10/754,493APPLICANT  
David C. Hacker et alFILING DATE  
1/12/04

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

			Owen, Jeffrey, Ph.D., "Benefits of Multi-Modality ION: Four Case Studies," Nicolet Biomedical, Inc. Article No. 169-410500.
			Hartmann, R., et al, "Evoked Potentials from the Auditory Nerve Following Sinusoidal Electrical Stimulation of the Cochlea: New Possibilities for Preoperative testing in Cochlear-Implant Candidates," Acta Otolaryngol 1994, 114, pp. 495-500
			Digitimer, Ltd, "Digitimer Multipulse Stimulator D185 Operator's Manual," Issue 6, 2003
			Digitimer, Ltd., "Digitimer Isolated Multipulse Stimulator Model D185, Operator's Manual", Issue 4, 1999.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





**IPT-212(a):4/90**



FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)ATTY DOCKET NO.  
2401.146.USSERIAL NO.  
10/754,493APPLICANT  
David C. Hacker et alFILING DATE  
1/12/04

GROUP

Date Submitted to PTO:

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

			Calancie B, Harris W, Broton JG, Alexeeva N, Green BA, "Threshold-level" multipulse transcranial electrical stimulation of motor cortex for intraoperative monitoring of spinal motor tracts: description of method and comparison to somatosensory evoked potential monitoring., J Neurosurg 88: 3, 457-70, Mar, 1998.
			Jones SJ, Harrison R, Koh KF, Mendoza N, Crockard HA, Motor evoked potential monitoring during spinal surgery: responses of distal limb muscles to transcranial cortical stimulation with pulse trains., Electroencephalogr Clin Neurophysiol 100: 5, 375-83, Sep, 1996.
			Pechstein U, Cedzich C, Nadstawek J, Schramm J, Transcranial high-frequency repetitive electrical stimulation for recording myogenic motor evoked potentials with the patient under general anesthesia., Neurosurgery 39: 2, 335-43; discussion 343-4, Aug, 1996.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO:

ATTY DOCKET NO.  
2401.146.USSERIAL NO.  
10/754,493APPLICANT  
David C. Hacker et alFILING DATE  
1/12/04

GROUP

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

			Calancie B, Harris W, Brindle F, Green BA and Landy H., "Threshold-level repetitive electrical stimulation for intraoperative monitoring of central motor conduction.", J Neurosurg (Spine 1) 95: 161-168 2001.
			Houlden D., "Intraoperative Spinal Cord Monitoring" Part of the Spine Block Curriculum in Neurosurgery - Electrophysiology Section, February 9, 2001.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.